

-37-

OPTIMIZATION TECHNIQUE FOR LAYERED MODULATION

ABSTRACT OF THE DISCLOSURE

A method and apparatus for optimizing a system for transmitting a layered modulated signal is disclosed. The method comprises the steps of defining the system in terms of a set of system parameters, including an optimal power separation S between a power of a first modulation layer and a power of a second modulation layer and a required system carrier-to-noise ratio (CNR_s), determining an optimal power separation S to minimize the error rate of a lower layer modulated signal BER_l , and selecting the remaining system parameters in the set of system parameters using the determined optimal power separation S .